

INST-012317

INSTRUCTIONS FOR INSTALLATION OF HARTZELL
DHC-G2YF-1BFP/F8068+2() PROPELLER ON CESSNA 180-180K OR 182-182R &
F182(P,Q) CONTINENTAL O-470 POWERED AIRCRAFT

STC SA04353CH

LOG OF REVISIONS

Revision	Revised Pages	Description of Revision	Date
IR	All	Initial Release	5 Nov 2018
A	All	Updated header (aircraft models & "D" clocking prefix)	10/30/2023
	3	Updated paragraph and table for Applicable Models to include model 180K, 182Q, 182R, and F182Q.	
		Updated applicable spinner for the 180-series aircraft to correct excessive spinner-to-cowl gap. Included statement of compatibility for Continental O-470-U/TS installations.	

NOTE: All changes are indicated by a vertical line along the left margin.

FAA Approved



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Les Doud
STC ODA Administrator
Hartzell STC ODA-100080-CE

Date 10/30/2023

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Please read these instructions and the Instructions for Continued Airworthiness before starting installation. If you have any questions regarding installation of this STC, please contact Hartzell Propeller at:

***Phone: (937) 778-4376 or
1-800-942-7767***

E-mail: techsupport@hartzellprop.com

1.0 General

These STC installation instructions provide the necessary information to install a DHC-G2YF-1BFP/F8068+2 propeller on the Cessna 180 & 182 aircraft. The specific propeller and spinner model are identified for the airplane model in the table below.

Airplane Model	Propeller Model	Spinner
180, 180A through K	DHC-G2YF-1BFP/F8068+2	D-4798-2(P)
182, 182A through G		D-4798-2(P)
182H through R; F182(P,Q)		D-4798(P)

2.0 Applicable Models

This STC propeller installation applies to all Cessna 180 and 180(A-J) aircraft equipped with Continental O-470-A (S/N 41000 and up) and O-470-(J, K, L, R, or S) engines and Cessna 182, 182A-182P, and F182P aircraft equipped with Continental O-470-(L, R, or S) engines.

This STC propeller installation also applies to Cessna 180K, 182(Q,R), and F182Q aircraft equipped with a Continental O-470-U engine.

This STC was shown to be compatible with aircraft & installations of a Continental O-470-U/TS engine rated at 250 HP @ 2,600 RPM.

It is the responsibility of the installer to verify compatibility of this STC with previously approved modifications installed on the airplane.

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3.0 Propeller Installation

1. Prior to removing the original propeller, rotate the engine crankshaft to extend the #6 piston to the top-dead-center (TDC) position. This will assist the installer with proper clocking of the STC propeller to minimize cabin vibration. With the crankshaft in this position, the clocking dowel pin holes should be located at the 12 o'clock and 6 o'clock position. See Figure 1 for a diagram.
2. Remove the original propeller and spinner per the applicable aircraft maintenance manual procedures.
3. Install the spinner bulkhead on the new propeller hub per Hartzell Owner's Manual 115N using the "Installation of a Metal Spinner Bulkhead on a Propeller Hub" instructions in the "spinner pre-installation" section of the manual.
4. Install new propeller and spinner dome on aircraft in accordance with Hartzell Owner's Manual number 115N. Follow installation instructions for "Installation of "F" Flange Propellers" in Manual 115N. Also reference the Cessna service manual section appropriate to the aircraft S/N and the configuration being modified. As mentioned in Step 1, the #6 cylinder should be in the TDC position. Install the STC propeller so that the propeller blades form approximately a **30° angle (angle "A")** with a horizontal reference line. See Figure 1 for a diagram.

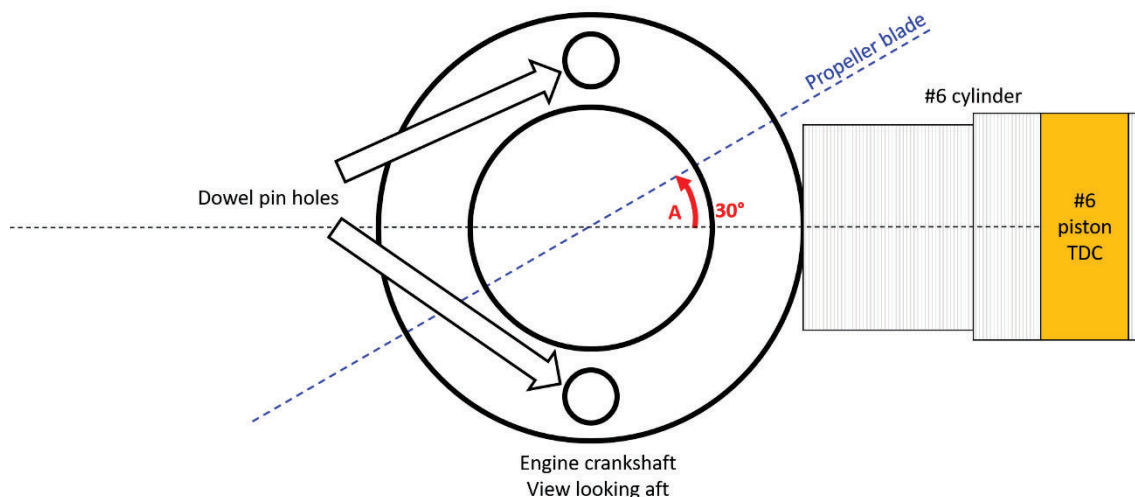


Figure 1: Propeller clocking diagram

5. Attach Hartzell Propeller Inc. Airplane Flight Manual Supplement AFMS-012317 to the existing Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
6. Revise weight and balance records to show:

Removal of original propeller and spinner

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Check equipment list in Pilot's Operating Handbook/FAA Approved Airplane
Flight Manual for appropriate propeller weight and moment arm.

Installation of Hartzell DHC-G2YF-1BFP / F8068+2 propeller and Hartzell spinner:

Weight of propeller and spinner = 58.7 lbs

Moment Arm is unchanged

7. Perform ground engine run for a functional and leak check of the Hartzell propeller installation.
8. Make the appropriate logbook entries and return aircraft to service with FAA Form 337 referencing this STC.
9. Perform a functional check-flight using normal procedures, note maximum RPM setting and adjust governor high-RPM stop if necessary.
10. Post-installation dynamic balance of the propeller/engine combination is recommended, but not required, per Chapter 6 of Hartzell Owner's Manual 115N.

END
